I-Occupancy Workgroup Proposed Amendments December 10, 2005

## CHAPTER 10 MEANS OF EGRESS

## SECTION 1003 GENERAL MEANS OF EGRESS

**1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm).

### **Exceptions:**

- 1. Sloped ceilings in accordance with Section 1208.2.
- 2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
- 3. Allowable projections in accordance with Section 1003.3.
- 4. Stair headroom in accordance with Section 1009.2.
- 5. Door height in accordance with Section 1008.1.1.
- 6. <u>In Group I, Division 2 occupancies, the means of egress shall have a ceiling height of not less than 8 feet (2439 mm).</u>

### **Purpose/Rationale:**

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**1003.3 Protruding objects.** Protruding objects shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

Exception: In Group I, Division 2 occupancies, protruding objects shall not extend more than 12 inches (305 mm) below the minimum ceiling height required by Section 1003.2

**1003.3.1 Headroom.** Protruding objects are permitted to extend below the minimum ceiling height required by Section 1003.2 provided a minimum headroom of 80 inches (2032 mm) shall be provided for any walking surface, including walks, corridors, aisles and passageways. Not more than 50 percent of the ceiling area of a means of egress shall be reduced in height by protruding objects.

**Exception:** Door closers and stops shall not reduce headroom to less than 78 inches (1981 mm).

A barrier shall be provided where the vertical clearance is less than 80 inches

(2032 mm) high. The leading edge of such a barrier shall be located 27 inches (686 mm) maximum above the floor.

### Purpose/Rationale:

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**1003.5 Elevation change.** Where changes in elevation of less than 12 inches (305 mm) exist in the means of egress, sloped surfaces shall be used. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps complying with Section 1010 shall be used. Where the difference in elevation is 6 inches (152 mm) or less, the ramp shall be equipped with either handrails or floor finish materials that contrast with adjacent floor finish materials.

### **Exceptions:**

- 1. A single step with a maximum riser height of 7 inches (178 mm) is permitted for buildings with occupancies in Groups F, H, R-2 and R-3 and Groups S and U at exterior doors not required to be accessible by Chapter 11.
- 2. A stair with a single riser or with two risers and a tread is permitted at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1009.3, the minimum depth of the tread is 13 inches (330 mm) and at least one handrail complying with Section 1012 is provided within 30 inches (762 mm) of the centerline of the normal path of egress travel on the stair.
- 3. A step is permitted in aisles serving seating that has a difference in elevation less than 12 inches (305 mm) at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1025.11 and the aisle is provided with a handrail complying with Section 1025.13.

Any change in elevation in a corridor or <u>exit passageway</u> serving nonambulatory persons in a Group I-2 occupancy shall be by means of a ramp or sloped walkway.

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## SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds and litters shall provide a clear width not less than 41.5 44 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

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1008.1.1.1 Projections into clear width. There shall not be projections into the required clear width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm). <a href="Exception: In a Group I-2 occupancy">Exception: In a Group I-2 occupancy</a>, there shall be no projections into the clear width of means of egress doors used for the movement of beds and litters.

Purpose/Rationale:

# **1008.1.2 Door swing.** Egress doors shall be side-hinged swinging. **Exceptions:**

- 1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
- 2. Group I-3 occupancies used as a place of detention.
- 3. Critical or intensive care patient rooms within suites of health care facilities.
- 4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
- 5. In other than Group H occupancies, revolving doors complying with Section 1008.1.3.1.
- 6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.3.3 are permitted in a means of egress.
- 7. Power-operated doors in accordance with Section 1008.1.3.2.
- 8. Doors serving a bathroom within an individual sleeping unit in Group R-1.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy. <u>In a Group I, Division 2</u> occupancy, all required exterior egress doors shall open in the direction of egress regardless of the occupant load served.

The opening force for interior side-swinging doors without closers shall not exceed a 5-pound (22 N) force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full-open position when subjected to a 15-pound (67 N) force. Forces shall be applied to the latch side.

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**1008.1.8.6 Delayed egress locks.** Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or <u>and</u> an approved automatic smoke or heat detection system installed in accordance with Section XXX, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

- 1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire <u>smoke</u> detection system.
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism. to any one of the followinng:
  - 2.1 The lock or lock mechanism.
  - 2.2 The automatic smoke detectection system.
  - 2.3 Means of egress illumination as required by Section 1006
- 3. The door locks shall have the capability of being unlocked by a signal from *an approved location and* the fire command center.
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds <u>shall be initiated</u> when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only at the door.

**Exception:** Where approved, a delay of not more than 30 seconds is permitted.

- 5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS. <u>Sign lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm).</u>
- 6. Emergency lighting shall be provided at the door.

#### Purpose/Rationale:

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

- 1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
- 2. The maximum unlatching force shall not exceed 15 pounds (67 N).

Each door in a means of egress from a Group A, or E or I, Division 2 occupancy having an occupant load of 50 or more and any Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

**Exception:** A main exit of a Group A occupancy in compliance with Section 1008.1.8.3, Item 2.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide that contain overcurrent devices, switching devices or control devices with exit access doors must be equipped with panic hardware and doors must swing in the direction of egress.

If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more then one-half the width of the door measured from the latch side.

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**1009.1 Stairway width.** The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

### **Exceptions:**

- 1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
- 2. Spiral stairways as provided for in Section 1009.8.
- 3. Aisle stairs complying with Section 1025.
- 3. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Means of egress stairs in a Group I-2 occupancy used for the movement of beds and litters shall provide a clear width not less than 41.5 44 inches (1118 mm).

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1011.6 Floor-level exit signs. Where exit signs are required by Section 1011.1, additional approved low-level exit signs which are internally or externally illuminated, photoluminescent or self-luminous, shall be provided in all interior corridors of Group I occupancies.

#### Exceptions:

- 1. Group I occupancies which are provided with smoke barriers constructed in accordance with Section 407.4.
- 2. Group I, Division 3 occupancies.

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit-access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

NOTE: Pursuant to Health and Safety Code Section 13143, this California amendment applies to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

Purpose/Rationale:

## SECTION 1012 HANDRAILS

**1012.7 Projections.** On ramps, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stairways and ramps at each handrail shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.2.

Exception: In a Group I-2 occupancy, on ramps and stairways used for the movement of beds and litters, the clear width between handrails shall be 44" (1118 mm) minimum.

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## SECTION 1014 EXIT ACCESS

**1014.2 Egress through intervening spaces.** Egress through intervening spaces shall comply with this section.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served, are not a high-hazard occupancy and provide a discernible path of egress travel to an exit.

**Exception:** Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

2. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

#### **Exceptions:**

- 1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
- 2. Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
  - 2.1. The stock is of the same hazard classification as that found in the main retail area;
  - 2.2. Not more than 50 percent of the exit access is through the stockroom;
  - 2.3. The stockroom is not subject to locking from the egress side; and
  - 2.4. There is a demarcated, minimum 44-inch-wide (1118 mm) aisle defined by full or partial height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.
- 3. An exit access shall not pass through a room that can be locked to prevent egress.
- 4. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
- <u>5. Exits shall not pass through any room subject to locking except in Group I, Division 2 occupancies classified as mental hospitals and Group I, Division 3 occupancies classified as detention facilities.</u>

## Purpose/Rationale:

**1014.2.2 Group I-2.** Habitable rooms or suites in Group I-2 occupancies shall have an exit access door leading directly to a corridor.

#### **Exceptions:**

- 1. Rooms with exit doors opening directly to the outside at ground level.
- 2. Patient sleeping rooms are permitted to have one intervening room if the intervening room is not used as an exit access for more than eight patient beds.
- 3. Special nursing suites are permitted to have one intervening room where the arrangement allows for direct and constant visual supervision by nursing personnel.
- 4. For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through one intervening room where the travel distance to the exit access door is not greater than 100 feet (30 480 mm).
- 5. For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through two intervening rooms where the travel distance to the exit access door is not greater than 50 feet (15 240 mm).

Suites of sleeping rooms shall not exceed 5,000 square feet (465 m²). Suites of rooms other than patient sleeping rooms shall not exceed 10,000 square feet (929 m²). Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet (93 m²) shall have at least two exit access doors remotely located from each other. Any room or suite of rooms other than patient sleeping rooms of more than 2,500 square feet (232 m²) shall have at least two access doors remotely located from each other. The travel distance between any point in a Group I-2 occupancy and an exit access door in the room shall not exceed 50 feet (15 240 mm). The travel distance between any point in a suite of sleeping rooms and an exit access door of that suite shall not exceed 100 feet (30 480 mm).

<u>Each suite of rooms shall be separated from the remainder of the building</u> by not less than a one-hour fire barrier.

Egress for portions of the building outside the suite shall not require passage through the suite.

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<u>1014.2.1.1</u> Basement exits. All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge or the public way.

Purpose/Rationale:

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## SECTION 1015 EXIT AND EXIT ACCESS DOORWAYS

## TABLE 1015.1 SPACES WITH ONE MEANS OF EGRESS

I-2 Not in Table 1015.1 Sec. 1013.2.2:

Sleeping rooms: Two exits >1000 sq. ft. (>8.33 persons) Inpatient treatment: Two exits >2,500 sq. ft. (>10.41 persons) Outpatient areas: Two exits > 2,500 sq. ft. (>25 persons)

IS THIS GOOD ENOUGH?

## SECTION 1017 CORRIDORS

## TABLE 1017.1 CORRIDOR FIRE RESISTANCE RATING

				-RESISTANCE RATING (hours)
	OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	Without sprinkler system	With sprinkler system
	1-2 <sup>a</sup> ,I-4	All	Not Permitted <sup>d</sup>	0

d. In existing Group I, Division 2 Occupancies, the corridor fire-resistance rating shall be 1-hour when the fire area is not equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.

Purpose/Rationale:

## 1019 NUMBER OF EXITS AND CONTINUITY

## TABLE 1019.2 BUILDINGS WITH ONE EXIT

OCCUPANCY	MAXIMUM HEIGHT OF BUILDING ABOVE GRADE PLANE	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
H-4, H-5, I, R	1 Story	10 occupants and 75 feet travel distance
<u>I-2</u>	<u>1 story</u>	8 occupants and 50 feet travel distance

Purpose/Rationale:

## SECTION 1021 EXIT PASSAGEWAYS

**1021.2 Width.** The width of exit passageways shall be determined as specified in Section 1005.1 but such width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width.

The required width of exit passageways shall be unobstructed.

Exception: Doors, when fully opened, and handrails, shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half. Other nonstructural projections such as trim and similar decorative features are permitted to project into the required width 1.5 inches (38 mm) on each side.

The clear width of exit passageways In a Group I-2 occupancy used for the movement of beds and litters shall be 44" (1118 mm) minimum.